

REMARKS

Initial Matter

Applicants respectfully request the indication of consideration of the Information Disclosure Statement filed on June 12, 2002. Applicants respectfully request that the Form PTO-1449 listing all documents filed on June 12, 2002 be returned during the next official communication.

Summary of the Claim Amendment

The claims are amended to address the rejections under 35U.S.C. §112, second paragraph. Claims 1, 2, 12, and 13 are also amended to more particularly claim the subject matter of the invention. The support for the new recitation “wherein the compound having a phosphoric acid structure is present at an amount between 0.001 to 80 % by weight relative to the organic solvent” can be found at lines 9-20 of page 18 of the specification. Therefore, no new matter is added.

Summary of the Official Action

1) Claims 1-21 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Specifically, the Office Action states that the recitations “type” and “alcohol based solvent” render the claims indefinite.

2) The Office Action also rejects claims 1, 6 under 35 U.S.C. §102(a) as being anticipated by U.S. Patent No. 6,573,304 (“DURAND”)

The Office Action states that DURAND discloses a composition comprising glycols and phosphoric acid and therefore meets the limitations of claims 1 and 6.

3) The Office Action also rejects claims 1 and 6 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,488,298 (“BARKEY”)

The Office Action states that BARKEY utilizes compounds in recycling of the polyester include alcohol solvents such as methanol or ethylene glycol and phosphorus compound such as phosphoric acid and therefore meets the limitations of claims 1 and 6.

4) The Office Action also rejects claims 12, 13, 17-21 under 35 U.S.C. §103(a) as being obvious over DURAND in view of U.S. Patent No. 3,907,868 (“CURRIE”).

The Office Action states that, although DURAND does not disclose that the filler is present in the waste polyester and their separation from the liquid medium as well as recitation of atmospheric pressure, CURRIE discloses that PTE contains fillers and they are necessarily present during recovery of PTE and CURRIE’s process is conducted at atmospheric pressure and a temperature range of 210-26°C.

The Office Action further reasons that “removal of any sort of additives or fillers from the waste polyester reaction medium allows one of ordinary skill in the art to obtain pure reaction product. In addition utilizing atmospheric pressure, as long as proper temperature is maintained does not adversely affect decomposition process.” The Office Action concludes that it would have been obvious to remove the additives or fillers from polyester waste as it was disclosed in CURRIE and apply that particular step in the process

of DURRAND. The Office Action also states that removing additives results in reaction product that is pure.

5) The Office Action also rejects claims 2-11, 14-16 under 35 U.S.C. §103(a) as being obvious over DURAND in view of CURRIE and further in view of BARKEY.

The Office Action states that although the combination of DURAND and CURRIE does not teach that other phosphates can be utilized in the decomposition process, BARKEY discloses the use of alkyl phosphates as the compounds in the decomposition process. The Office Action further states that utilizing salts of phosphoric acid such as phosphates in the decomposition medium of BARKEY would still result in deactivation of the glycolysis catalyst and esterification since they are functional equivalent with the alkyl phosphate. The Office Action concludes that it would be obvious to utilize phosphate salts in the process of DURAND and CURRIE because the solution would still efficiently decompose waste polyester.

6) The Office Action also rejects claims 1-10 under 35 U.S.C. §103(a) as being obvious over BARKEY.

The Office Action states that BARKEY discloses the use of alkyl phosphates in the decomposition process and both salt of phosphoric acid and phosphates are functional equivalents and therefore it would have been obvious to use phosphate salts as functional equivalents in BARKEY process because the solution would still efficiently decompose waste polyester.

7) The Office Action also rejects claims 11-21 under 35 U.S.C. §103(a) as being obvious over BARKEY in view of CURRIE.

The Office Action states that the difference between the present invention and the disclosure of BARKEY is the discussion of the solids or fillers present in the waste polyester and their separation from the liquid medium as well as recitation of atmospheric pressure. However, the Office Action states that CURRIE discloses that PTE contains fillers and they are necessarily present during recovery of PTE and CURRIE's process is conducted at atmospheric pressure and a temperature range of 210-26°C.

Therefore, the Office Action concludes that it would be obvious to remove the fillers from polyester waste as it is disclosed in CURRIE and apply that particular step in the process of BARKEY and removing of additives results in reaction product that is pure.

Response to the rejections

1) Rejection of claims 1-21 under 35 U.S.C. §112, second paragraph.

Applicants respectfully submit that claims 1-21 have been amended to render this rejection moot. Therefore, this rejection should be withdrawn.

2) Rejection of claims 1, 6 under 35 U.S.C. §102(a) as being anticipated by U.S. Patent No. 6,573,304 ("DURAND"):

It is well settled that for a claim to be anticipated by a prior document, the prior document must disclose or teach each and every recitation of the claim. In the present application, Applicants respectfully submit that DURAND fails to disclose or suggest at

least the recitation that the claimed invention discloses a cured unsaturated polyester resin.

DURAND discloses PET but PET does not have an unsaturated bond being capable of crosslinking. The Office Action states that “one of ordinary skill in the art would understand that all PET products on the shelf that are used and become post-consumer waste are crosslinked or otherwise cured in order to make them durable.” This is simply not true. In fact, one of ordinary skill in the art would consider that PET is not crosslinked.

The presently claimed invention discloses a cured unsaturated polyester resin and the unsaturated bond of the resin is capable of crosslinking.

Therefore, DURAND fails to disclose or suggest all recitations of the rejected claims and cannot be said to anticipate or renders obvious the rejected claims of the present application. The rejection should be withdrawn.

3) Rejection of claims 1, 6 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,488,298 (“BARKEY”):

Like DURAND, BARKEY fails to disclose or suggest all recitations of claims 1 and 6. In particular, BARKEY fails to disclose the recitation of claims 1 and 6 that “the compound having phosphoric acid structure is present at an amount between 0.001 to 80 % by weight relative to the organic solvent.” Applicants respectfully submit that, as discussed in the specification at page 18, lines 9-20, such a range in the treatment liquid is a preferred range for the purpose of carrying out the present invention and such range is not disclosed or suggested in BARKEY.

Therefore, the rejection of claims 1 and 6 under 35 U.S.C. §102(b) should be withdrawn.

4) *Rejection of claims 12, 13, 17-21 under 35 U.S.C. §103(a) as being obvious over DURAND in view of U.S. Patent No. 3,907,868 ("CURRIE"):*

As the Examiner is well aware, in order to establish a prima facie case of obviousness, there must be some suggestion or motivation to change the cited document to arrive at the presently claimed invention. Here, even if there were a suggestion to combine DURAND and CURRIE, the combination would still not arrive at a compound that "wherein the compound having phosphoric acid structure is present at an amount between 0.001 to 80 % by weight relative to the organic solvent." Therefore, the Office Action has not established a prima facie case of obviousness and the rejection should be withdrawn.

5) *Rejection of claims 2-11, 14-16 under 35 U.S.C. §103(a) as being obvious over DURAND in view of CURRIE and further in view of BARKEY:*

As discussed in item 4) above, in order to establish a prima facie case of obviousness, there must be suggestion or motivation to change the cited document to arrive at the presently claimed invention. Here, even if there were a suggestion to combine DURAND, CURRIE and BARKEY, the combination would still not arrive at a composition "wherein the compound having phosphoric acid structure is present at an amount between 0.001 to 80 % by weight relative to the organic solvent." Therefore, the Office Action has not established a prima facie case of obviousness and the rejection should be withdrawn.

6) *The rejection of claims 1-10 under 35 U.S.C. §103(a) as being obvious over BARKEY:*

Applicants respectfully submit that even if the Examiner's reasoning is correct, there is no motivation or suggestion to change BARKEY to arrive at a composition "wherein the compound having phosphoric acid structure is present at an amount between 0.001 to 80 % by weight relative to the organic solvent." Therefore, the Office Action has not established a prima facie case of obviousness and the rejection should be withdrawn.

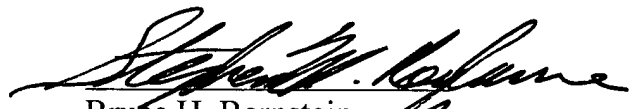
7) *Rejection of claims 11-21 under 35 U.S.C. §103(a) as being obvious over BARKEY in view of CURRIE:*

As discussed above, in order to establish a prima facie case of obviousness, there must be suggestion or motivation to change the cited document to arrive at the presently claimed invention. Here, even if there were a suggestion to combine BARKEY and CURRIE, the combination would still not arrive at a composition that "wherein the compound having phosphoric acid structure is present at an amount between 0.001 to 80 % by weight relative to the organic solvent." Because of this, the Office Action has not established a prima facie case of obviousness and the rejection should be withdrawn.

CONCLUSION

In view of the foregoing, it is believed that all of the claims in this application are in condition for allowance, which action is respectfully requested. If any issues yet remain which can be resolved by a telephone conference, the Examiner is respectfully invited to telephone the undersigned at the telephone number below.

Respectfully submitted.
Katsuji SHIBATA et al.


Bruce H. Bernstein
Reg. No. 29,027
Reg No 31,196

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GREENBLUM & BERNSTEIN, P.L.C.
1941 Roland Clarke Place
Reston, VA 20191
(703) 716-1191